GTG Construction

Feasibility Study for the Veterans Memorial Coliseum

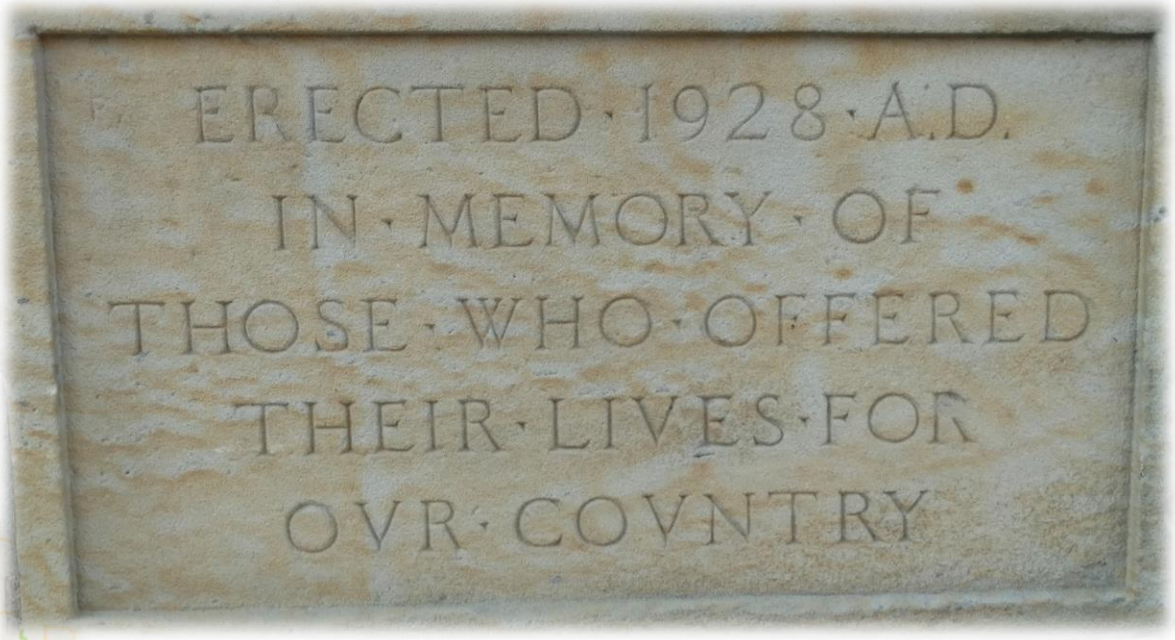
Marshalltown, Iowa

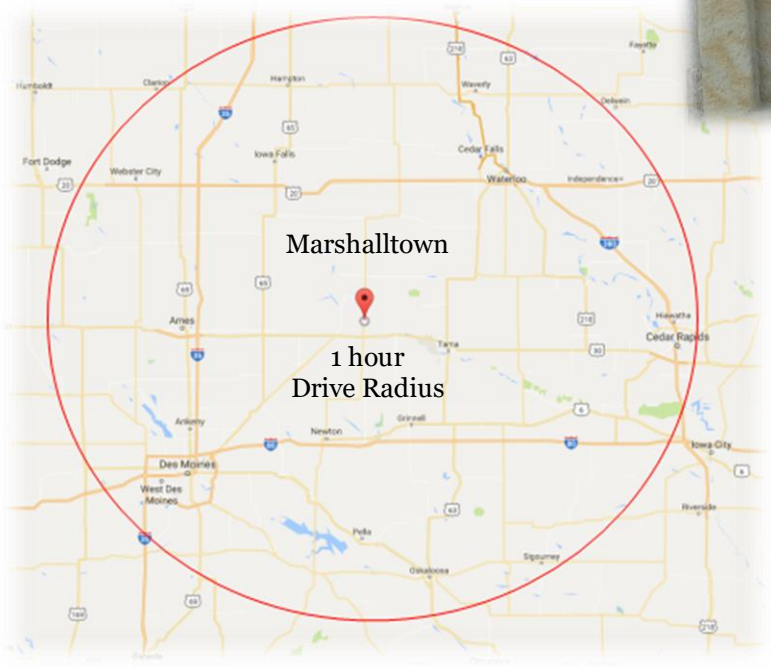
EXECUTIVE SUMMARY:

Veterans Memorial Coliseum has long been a part of the local, regional and national impact of the City of Marshalltown.

What made it special initially is still true today – it provides a place for large & small groups of people to gather, bond and develop a sense of community.

Today's challenge is to respond to years of deferred maintance and some operational obsolence while capitalizing on the regionally unique facility.





OBSERVATIONS:

A. An overall evaluation the building's architectural, structural, mechanical & electrical systems reveal:

1. Architecturally: the 2nd floor, stage, balcony & basement are not readily accessible. For all intentional purposes, they have been abandoned.
2. Structurally: the building is remarkably sound for its age.
3. Mechanically: the HVAC, Plumbing, Electrical & Fire Sprinkler systems are antiquated and far below today's requirements for large group assembly space.

B. Operationally:

1. Despite its poor condition, the building continues to serve a need for locally and regionally for recreation & entertainment space.
2. The facility also occasionally serves as a part of the community's emergency shelter system.
3. Operational times are limited due to the lack of air conditioning.
4. Administrative spaces are in the adjacent Parks & Recreation Building.

C. Recommendations:

1. Maximize the high-ceiling space of the gymnasium – making it possible to host even more types of events simultaneously.
    A. Achieve this by removing the operationally obsolete balcony and stage.
    B. Usable space increases from 9,435 SF to 14,233 SF
2. Upgrade the mechanical systems to today's standards:
    C. Ensuring the proper amount of fresh air for large group assembly.
    D. Properly heat and cool the entire building for year-round usage.
3. Improve the accessibility to all three floors of the multi-story wing.
    A. Add an elevator to serve all three floors.
    B. Reconfigure walls and hallways to maximize the usage of these areas.
        i. 1st floor usable space changes from 3,672 SF to 3,351 SF
        ii. 2nd floor usable space changes from 3,810 SF to 3,978 SF
4. Connect the building to the site:
    A. Provide covered drop-off on west side of building
    B. Incorporate parking lot to the west as over-flow or staging areas for events hosted at the facility.

BUDGET:

Description	Cost
General Conditions	$522,844
Demolition	$171,600
Site Work	$142,352
Foundations	$117,481
Structure	$210,101
Enclosure	$375,513
Interiors	$418,032
Elevator	$160,507
MEP	$1,383,370
FFE	$378,100
Total Cost	**$3,879,900**

MILESTONE SCHEDULE:

Duration	Activity
3 Months	Design
2 Months	Demolition
2 Months	Site Work & Foundations
3 Months	Structure & Enclosure
4 Months	Interiors, MEP, FFE & Elevator

END OF EXECUTIVE SUMMARY

This narrative and accompanying preliminary & schematic drawings describe the general scope of work for the design and construction:

PROJECT NAME:	**VETERANS MEMORIAL COLISEUM FEASIBILITY STUDY**
FOR THE OWNER:	**CITY OF MARSHALLTOWN**
LOCATION:	**MARSHALLTOWN, IOWA**

GENERAL CONDITIONS

A. Supervision:
1. Full Time on-site Superintendent
2. Project Manager

B. Professional Services:
1. Insurance
2. Bonding
3. Testing and Special Inspections: Geotechnical Report and Testing for Soil, Concrete, and Steel

C. Design:
1. Design services provided for: Architectural, Structural, Civil, and Landscape.
2. Design team will work with the Weidt Group to value engineer the building's enclosure, mechanical and electrical systems.
3. Design services for mechanical, electrical & plumbing is included as part of the Mechanical, Electrical & Plumbing construction costs.

D. Building Code Compliance:
1. Building Code Analysis: See plans for preliminary code analysis.
2. Building permit is not included in this budget

E. Temporary Construction:
1. Signage
2. Barricade
3. 6' high chain link fence & gate to separate public from construction
4. Utilities – not included
5. Restrooms – included
6. Temporary enclosure of door & window openings

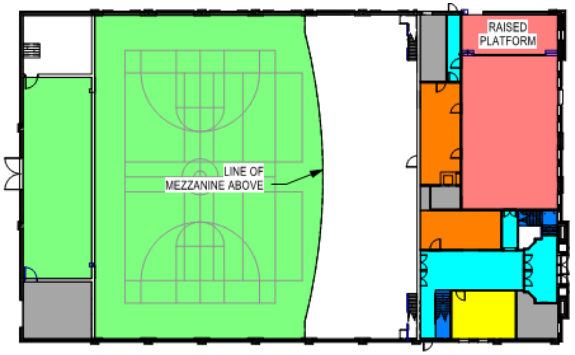
F. Cleaning:
1. Final cleaning of 24,000SF building, windows, doors & site
2. Weekly cleaning
3. Dumpster fees

GTG
Creative Building Solutions That Work

DEMOLITION

A. Exterior Demolition:
1. Sidewalk removal on north & west side of Coliseum approximately, 6,850SF
2. Parking lot removal on west side of Coliseum approximately, 9,200SF
3. Removal of existing exterior insulation & finishing system approximately 350SF
4. Remove masonry in gym walls for new windows. (6) windows per side approximately, 60SF each
5. Remove all existing doors & windows

B. Interior Demolition:
1. Hazardous Material abatement.
2. Removal of all interior walls & ceilings in two story portion
3. Removal of balcony approximately 4,000SF
4. Removal of entire stage, staircase & rooms on south end of building approx. 3,500SF upper & lower
5. Removal of masonry chimney
6. Removal of skylights
7. Removal of center stair



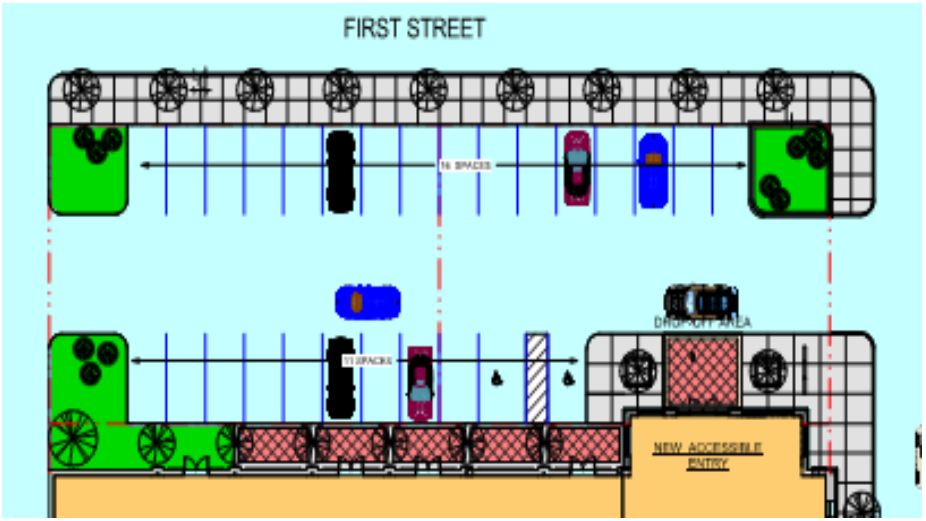
SITE WORK

A. Site Paving: All exterior concrete paving shall be scored and jointed to minimize random cracking and treated with a light broom finish.
   1. Sidewalks: 4 inches thick non-reinforced concrete approx. 5,000SF
   2. Automobile Paving: 6 inches thick non-reinforced concrete approx. 9,000SF
   3. Decorative paving approx. 1,000SF

B. Signage:
   1. One (1) Monument sign.
   2. ADA: handicapped parking stall pole signs and international symbol and striping on paving as required.
   3. Twenty-Seven (27) Parking Stall: single yellow lines between stalls.

C. Landscaping:
   1. Twenty-Five (25) Trees & tree grating
   2. Eleven (11) shrubs
   3. 2,250SF Sod
   4. Two (2) Planter boxes w/ import dirt

D. Other Site Improvements:
   1. Three (3) Bike racks
   2. One (1) Flag pole
   3. Canopy over new entrance



FOUNDATIONS

A. Elevator:
   1. 4,000 PSI concrete footings, 44 LF x 1 FT tall x 2 FT wide:
      A. Forms
      B. Rebar
      C. Backfill

   2. 4,000 PSI concrete walls, 66 LF x 4 FT tall x 1 FT wide:
      A. Forms
      B. Rebar
      C. Membrane waterproofing
      D. Insulation
      E. 4" drain tile
      F. Pea grave
      G. Backfill

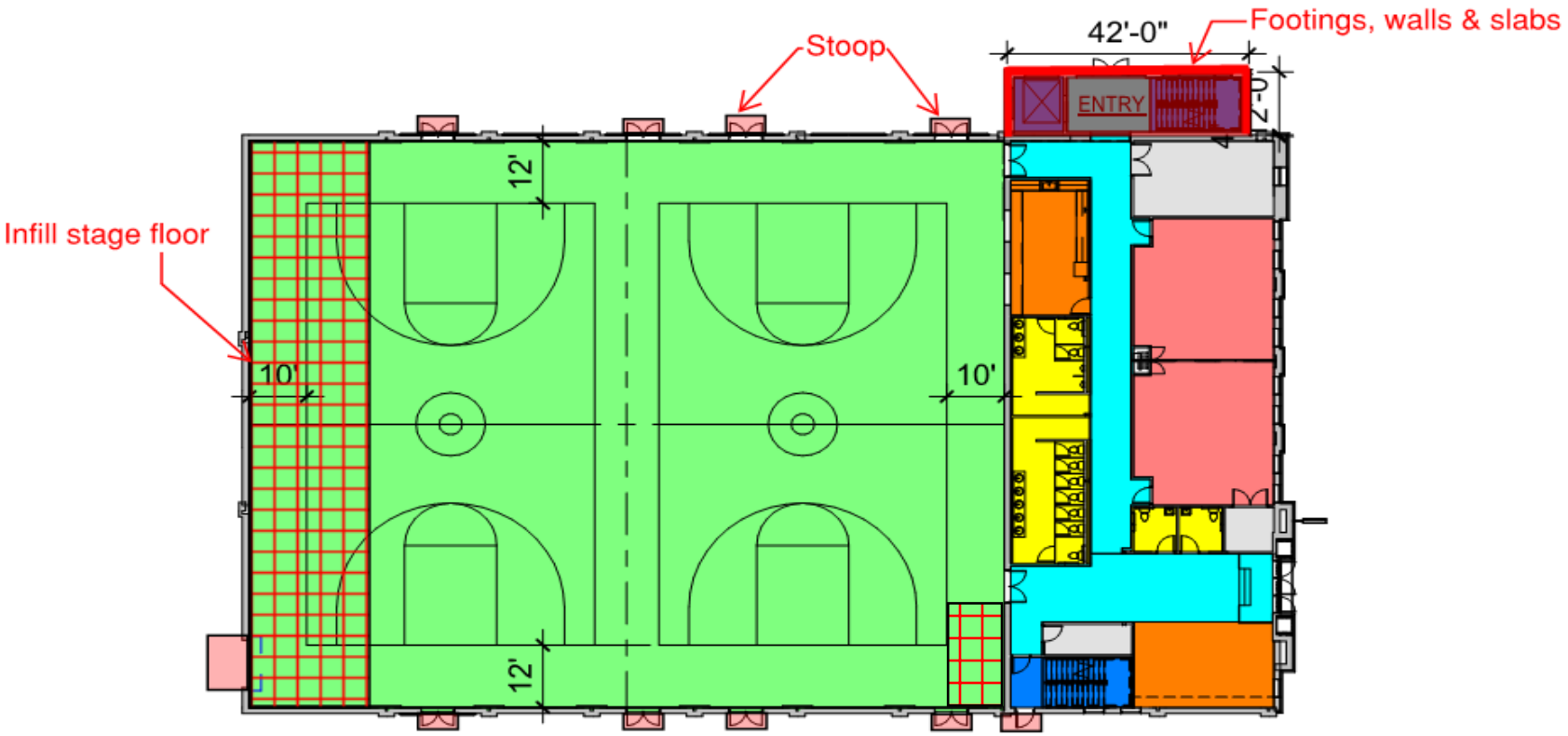
B. West Entrance:
   1. 4,000 PSI concrete footings, 66 LF x 15 FT tall x 2 Ft wide:
      A. Forms
      B. Rebar
      C. Backfill

   2. 4,000 PSI concrete walls, 66 LF x 15 FT tall x 1 FT wide:
      A. Forms
      B. Rebar
      C. Membrane waterproofing
      D. Insulation
      E. 4" drain tile
      F. Pea grave
      G. Backfill

   3. 4,000 PSI concrete slab, 400 SF:
      A. Forms
      B. Mesh/Rebar
      C. Under slab vapor barrier
      D. Sealed floor

C. Stage Floor Infill:
   1. 4,000 PSI concrete slab, 2600 SF:
      A. Forms
      B. Mesh/Rebar
      C. Under slab vapor barrier
      D. Sealed floor

D. Stoops:
   1. Ten (10) 4,000 PSI stoop footings 5 FT x 8 FT x 3.5 FT tall:
      A. Forms
      B. Rebar
      C. Backfill



STRUCTURE

A. Roof Structural Reinforcement:
   1. Infill two (2) skylights
   2. Infill one (1) chimney
   3. HVAC roof top unit support
   4. Operable wall support

B. 2nd Floor Structural Reinforcement:
   1. Infill one (1) chimney
   2. Infill center stairwell
   3. Reconfigure East stairwell

C. 1st Floor Structural Reinforcement:
   1. Infill one (1) chimney
   2. Reconfigure East stairwell

D. Gym Structural Reinforcement:
   1. Infill floor to basement locker rooms
   2. Ceiling at stage area
   3. Infill floor at stage area

E. Construct West Stair Tower

F. Construct East Stair Tower

ENCLOSURE

A. Windows & Doors:

1. North Side:
   A. (27) Windows w/ Metal Panels
   B. Entrance Doors
   C. (1) Electronic card reader

2. South Side:
   A. Overhead Door

3. West Side:
   A. New entrance glass approx.... 825Sf
   B. New entry storefront door approx. 110SF
   C. (7) Windows in two story portion
   D. (6) Windows in gym approx. 50SF each
   E. (4) Glass double doors in gym
   F. (2) Electronic card readers

4. East Side:
   A. (6) Windows in two story portion
   B. (6) Windows in gym approx. 50SF each
   C. (4) Hollow metal double doors, frame & hardware in gym
   D. (2) Electronic card readers

B. Remove & replace roof membrane & coping on the two-story portion only, approx. 5,000 SF

C. Masonry:

1. Stone wainscot over existing stone approximately, 4,200SF
2. Brick piers at the west entrance

INTERIOR FINISHES

A. Walls:
1. Interior fur-out wall over the interior of existing exterior walls within the administrative portion: 3-5/8" metal studs at 16 inches on center with 5/8" thick gypsum sheathing – smooth finish. Approximately, 400 LF
2. Interior partitions: 3-5/8" x 20 gage metal studs at 16 inches on center with 5/8" thick gypsum sheathing – smooth finish. Approximately, 815 LF
3. Rough Carpentry: Blocking for anchorage of doors, windows, millwork, toilet accessories, etc.
4. RFP 4'x8' sheets on Janitor closet walls
5. Paint: one coat primer, two top coats paint on all walls
6. Ceramic tile wainscot to 5' above finished floor on "wet" wall of restrooms.

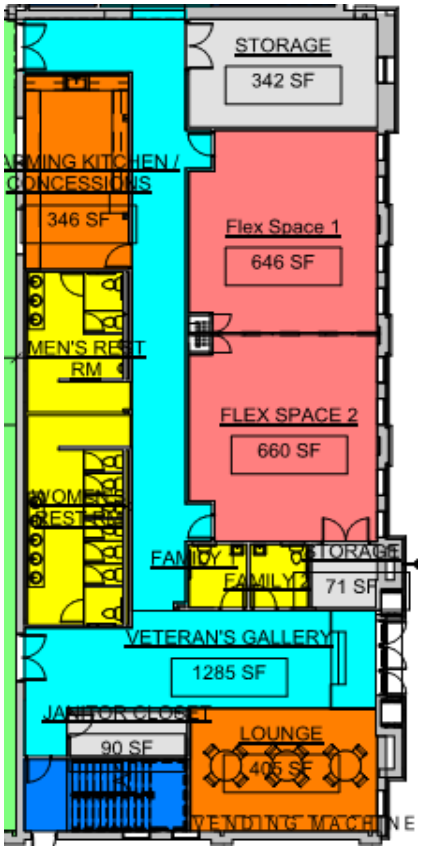
B. Doors:
1. (6) Interior hollow metal double doors, metal frames & hardware
2. (21) Interior wood single doors, frames & hardware
3. (6) Electronic card readers

C. Millwork:
1. Kitchen:
   A. 27 LF solid wood upper cabinets
   B. 27 LF solid wood base cabinets
   C. 50 LF plastic laminate countertops
2. Restrooms:
   A. 32 LF plastic laminate countertops

D. Flooring:
1. Sand & finish existing wood floor of Gym
2. New wood gym floor to match existing at stage & locker room stairs (3,000 SF)
3. Paint lines for (2) basketball courts & (4) volleyball courts
4. Carpet tiles for main (1,300 SF), upper flex space (3,000 SF) & upper corridor (1,000 SF)
5. Resilient tile for main storage, janitor, corridor approximately, 2,530 SF
6. Resilient tile for upper storage & mechanical approximately, 640 SF
7. Resilient vinyl base throughout entire building approximately, 2,350 LF
8. Porcelain tile on floors of main & upper restrooms & kitchen, 1,500 SF

E. Ceiling:
1. Acoustical ceiling tiles 5/8" x 2 'x 2' for two story portion
2. Repaint existing gym ceiling

F. Operable partition for lower & upper flex spaces approximately, 80 LF



MECHANICAL, ELECTRICAL AND PLUMBING

A. Fire Suppression:
   1. New wet system in basement & two story portion
   2. System in gym to remain as is

B. Plumbing System:
   1. Design of new plumbing system throughout entire building
   2. Plumbing System to include:
      A. Water & sewage piping
      B. Toilets, urinals & sinks in restrooms
      C. Stainless steel double bowl sink in kitchen
      D. Lift station in basement
      E. Water heater
      F. Drinking Fountains

C. HVAC System:
   1. Design of new HVAC system throughout entire building
   2. HVAC System to include:
      A. (2) Packaged Units (1 for two story & 1 for gym)
      B. Ductwork
      C. Insulation
      D. Gas Piping
      E. Controls
      F. Commissioning & TAB

A. Electrical System:
   1. Design of new Electrical system throughout entire building
   2. Electrical System to include:
      A. General distribution
      B. Service entrance
      C. Power for mechanical equipment
      D. Security system
      E. Voice/Data
      F. Lighting
      G. Emergency generator allowance $70,000

FIXTURES, FURNISHINGS AND EQUIPMENT

A. Specialties:

1. (13) Toilet partitions
2. (15) Toilet paper dispensers
3. (6) Paper towel dispensers
4. (14) Soap dispensers
5. (3) grab bars in each ADA toilet stall
6. (2) Baby changing stations
7. (12) 24”x36” Mirrors
8. Window treatments
9. (6) Marker boards

B. Signage:

1. ADA at each restroom
2. Typical room signage

C. Appliances:

1. (2) Commercial ranges
2. (2) Commercial refrigerators
3. (2) Microwaves
4. (2) Dishwashers

D. Athletic Equipment:

1. (6) Electronic basketball hoops
2. (6) Scoreboards
3. (4) Volleyball poles & nets
4. (4) Sets of removable bleachers
5. Gym Curtains, 5,400 SF

E. Safety:

1. (12) Fire extinguisher & cabinets
2. (3) Philips HeartStart defibrillator & cabinet

F. Audio Visual & Sound System allowance $75,000

G. Acoustical treatments/mural allowance $40,000

CLARIFICATIONS

A. Budget:
   1. This budget is valid for 90 days from the date of this budget.
   2. Amounts listed are in today's dollars – no provisions have been made for inflation.
   3. The estimate is based on performing all work during normal business hours.
   4. Weidt Group projected rebate from Alliant Energy could range from $3,000 - $20,000.
   5. Rebates and cash discounts will be forwarded to the City of Marshalltown. Their impact is not factored into this budget.
   6. Security system not included
   7. Furniture not included

END OF NARRATIVE

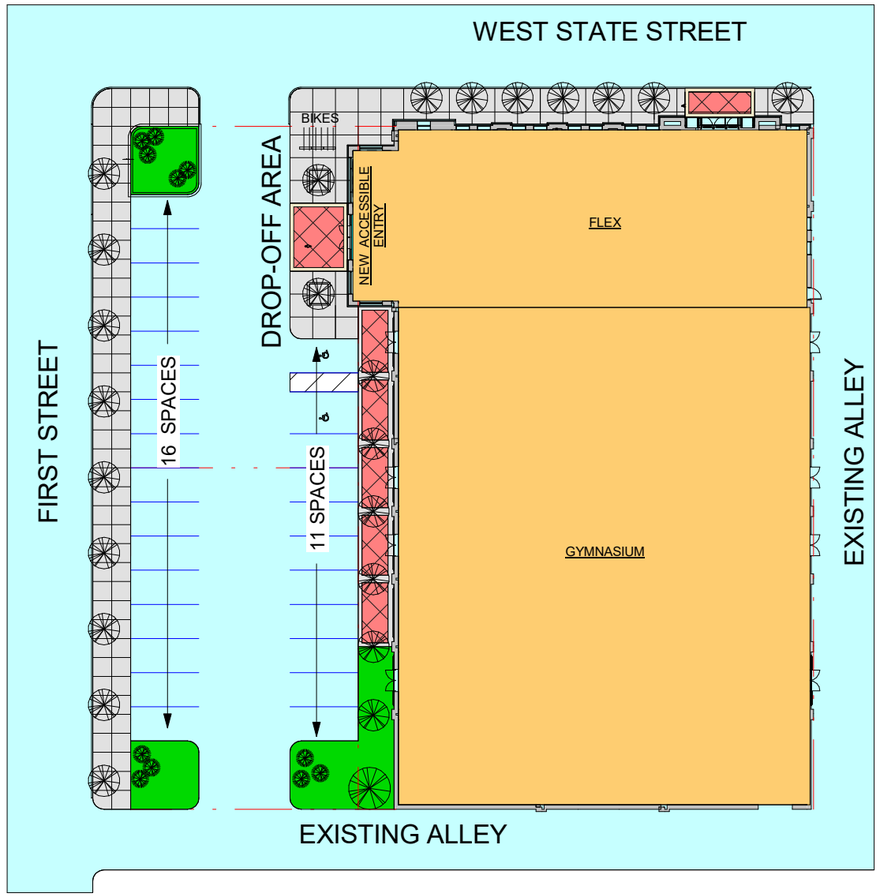
Attachments following the narrative include:

A. GTG Conceptual Plans, 13 pages, dated 04/10/17.

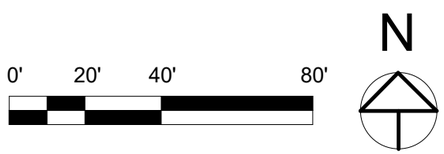
B. SystemWorks Facility Assessment

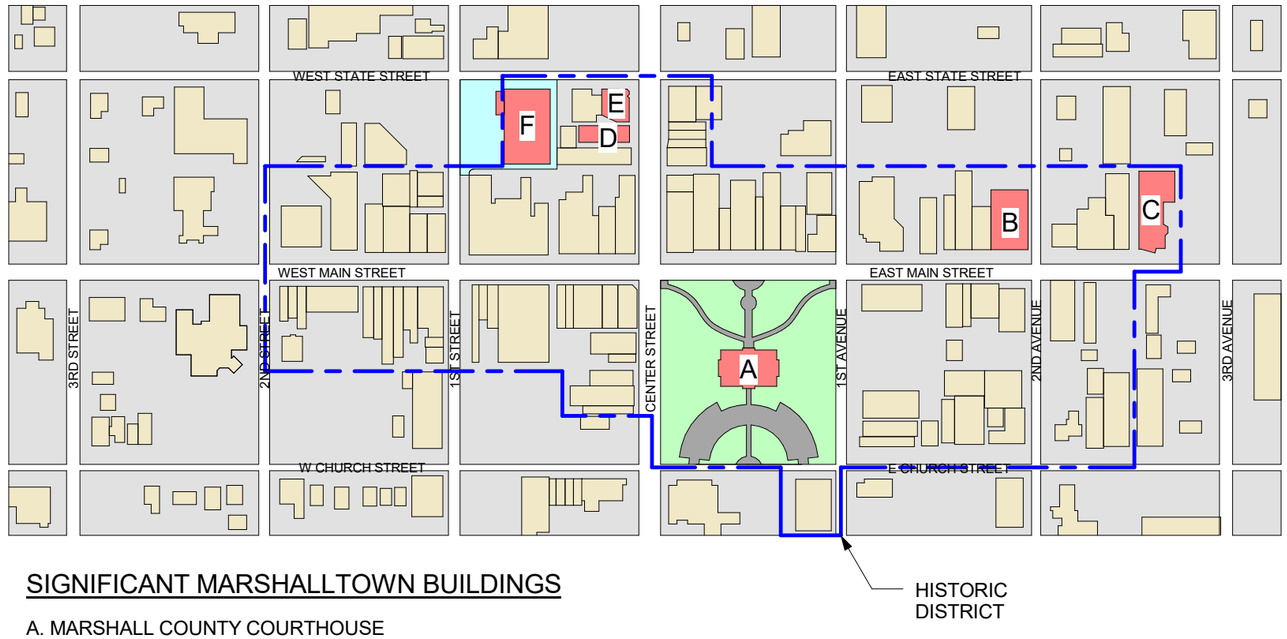
C. Impact 7 G Facility Assessment

Veterans Memorial Coliseum Feasibility Study



F. VETERAN'S MEMORIAL COLISEUM





SIGNIFICANT MARSHALLTOWN BUILDINGS

A. MARSHALL COUNTY COURTHOUSE

B. TALLCORN TOWER

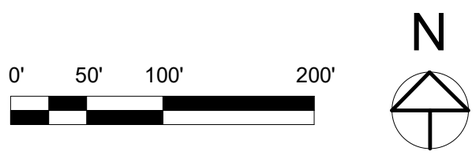
C. ORPHEUM THEATRE

D. MARSHALLTOWN MUNICIPAL BUILDING

E. OLD CARNEGIE LABRARY

F. VETERANS MEMORIAL COLISEUM

MARSHALLTOWN DOWNTOWN HISTORIC DISTRICT



DATE:	04/10/2017

GTG
Creative Building Solutions That Work

Veterans Memorial Coliseum Feasibility Study

VIEW LOOKING SOUTHEAST

DATE:	04/10/2017

GTG

Creative Building Solutions That Work

Veterans Memorial Coliseum Feasibility Study

NORTH ELEVATION

0' 5'-4" 10'-8" 21'-4"

DATE:	04/10/2017

GTG

Creative Building Solutions That Work

Veterans Memorial Coliseum Feasibility Study

WEST ELEVATION

0' 8' 16' 32'

DATE:	04/10/2017

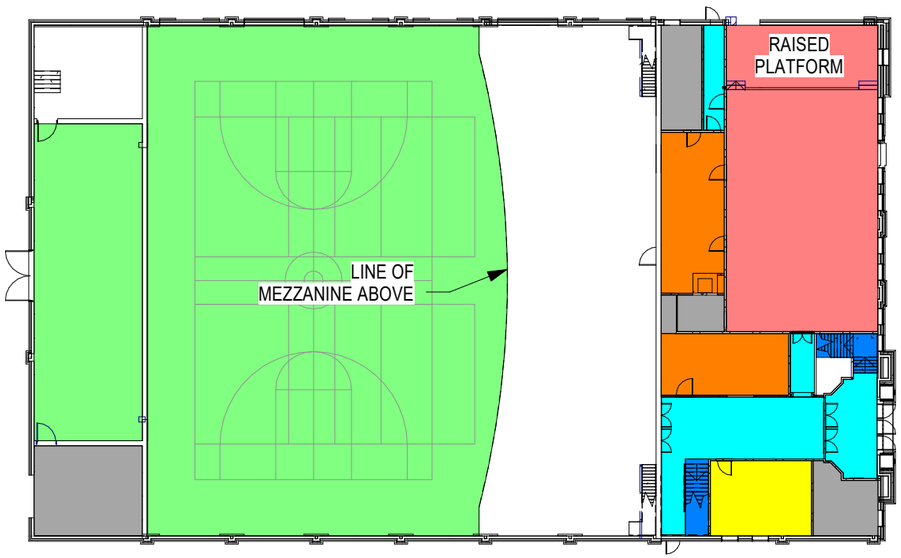
GTG

Creative Building Solutions That Work

Veterans Memorial Coliseum Feasibility Study

FIRST FLOOR EXISTING PLAN LEGEND

- HIGH VOLUME RECREATION = 9,435 SF
- LOW VOLUME FLEX SPACE = 2,065 SF
- OFFICE/SUPPORT = 801 SF
- REST ROOM = 337 SF
- HALLWAY/CIRCULATION = 812 SF
- STAIRS/ELEVATOR = 160 SF
- STORAGE/MECHANICAL = 469 SF



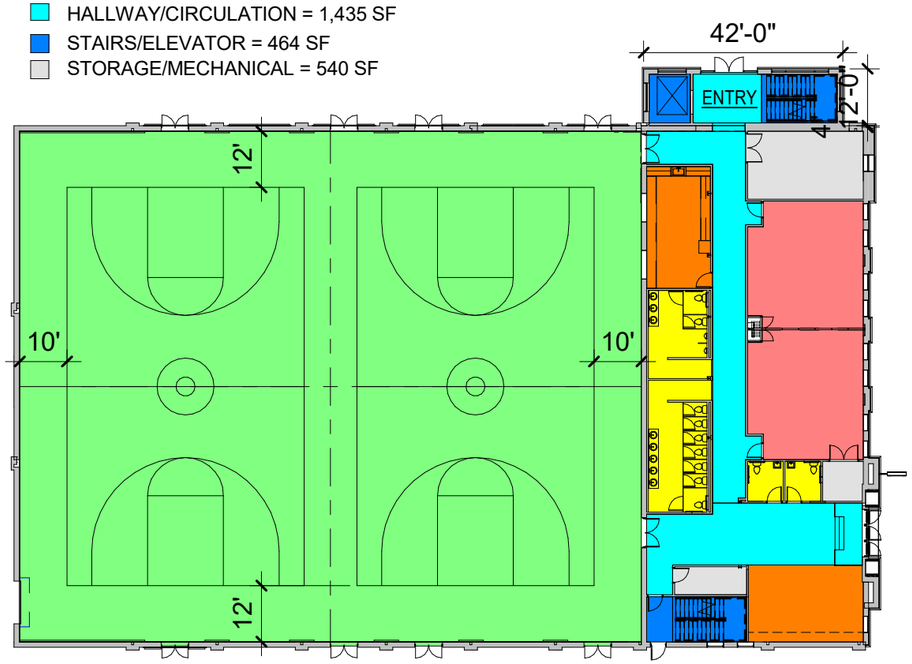
FIRST FLOOR SPACE ALLOCATION - EXISTING

0' 16' 32' 64'

N

FIRST FLOOR PROPOSED PLAN LEGEND

- HIGH VOLUME RECREATION = 14,233 SF
- LOW VOLUME FLEX SPACE = 1,277 SF
- OFFICE/SUPPORT = 750 SF
- REST ROOM = 784 SF
- HALLWAY/CIRCULATION = 1,435 SF
- STAIRS/ELEVATOR = 464 SF
- STORAGE/MECHANICAL = 540 SF



FIRST FLOOR SPACE ALLOCATION - PROPOSED

0' 16' 32' 64'

N

DATE:	04/10/2017

GTG

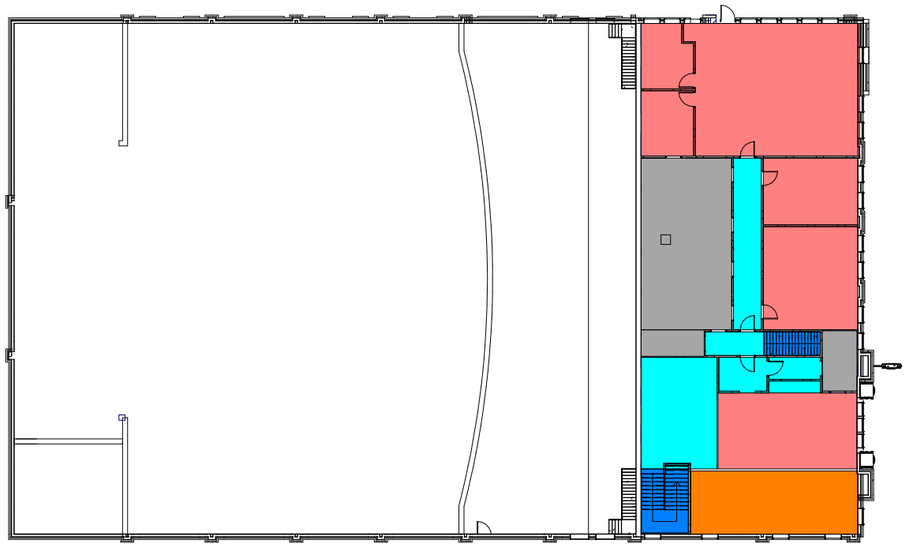
Creative Building Solutions That Work

the City of Marshalltown

Veterans Memorial Coliseum Feasibility Study

SECOND FLOOR EXISTING PLAN LEGEND

- HIGH VOLUME RECREATION = 0 SF
- LOW VOLUME FLEX SPACE = 2,482 SF
- OFFICE/SUPPORT = 470 SF
- REST ROOM = 0 SF
- HALLWAY/CIRCULATION = 811 SF
- STAIRS/ELEVATOR = 196 SF
- STORAGE/MECHANICAL = 858 SF



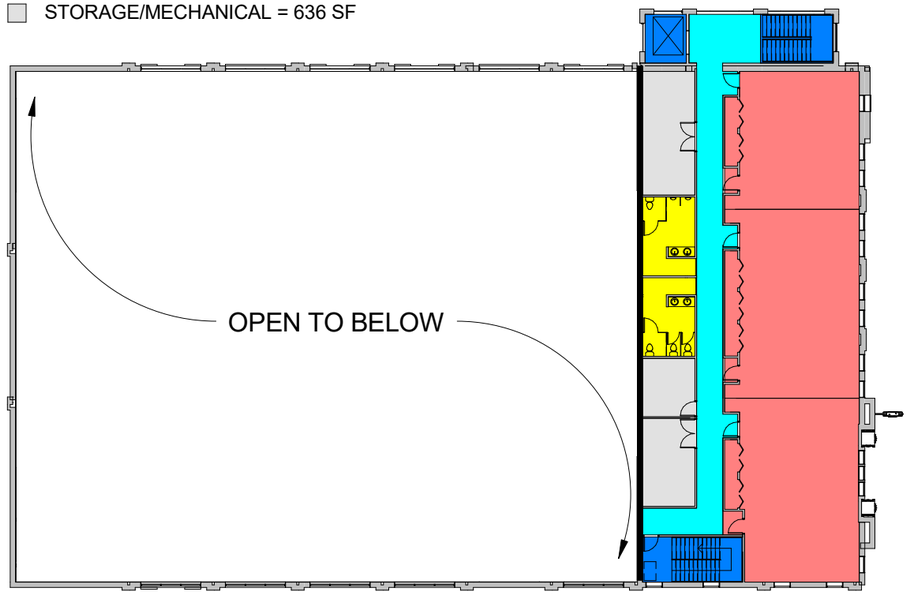
SECOND FLOOR SPACE ALLOCATION - EXISTING

0' 16' 32' 64'

N

SECOND FLOOR PROPOSED PLAN LEGEND

- HIGH VOLUME RECREATION = 0 SF
- LOW VOLUME FLEX SPACE = 2,958 SF
- OFFICE/SUPPORT = 0 SF
- REST ROOM = 384 SF
- HALLWAY/CIRCULATION = 816 SF
- STAIRS/ELEVATOR = 445 SF
- STORAGE/MECHANICAL = 636 SF



SECOND FLOOR SPACE ALLOCATION - PROPOSED

0' 16' 32' 64'

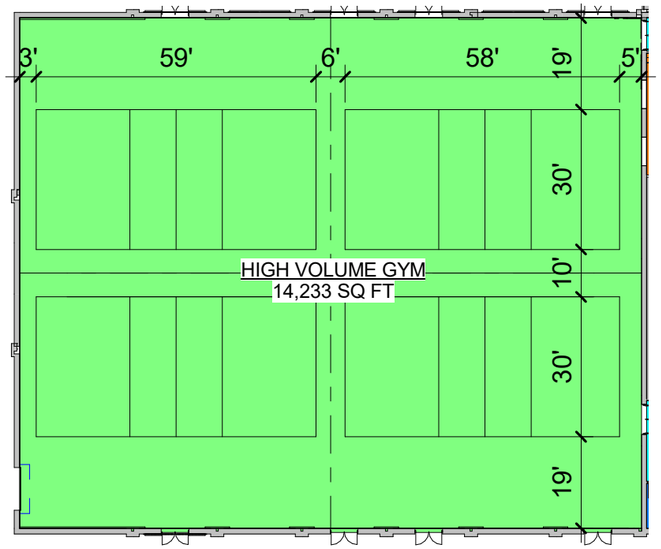
N

DATE:	04/10/2017

GTG

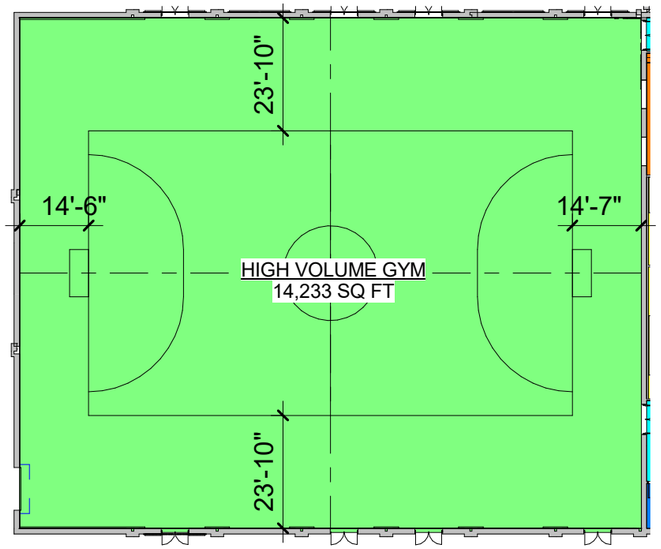
Creative Building Solutions That Work

Veterans Memorial Coliseum Feasibility Study



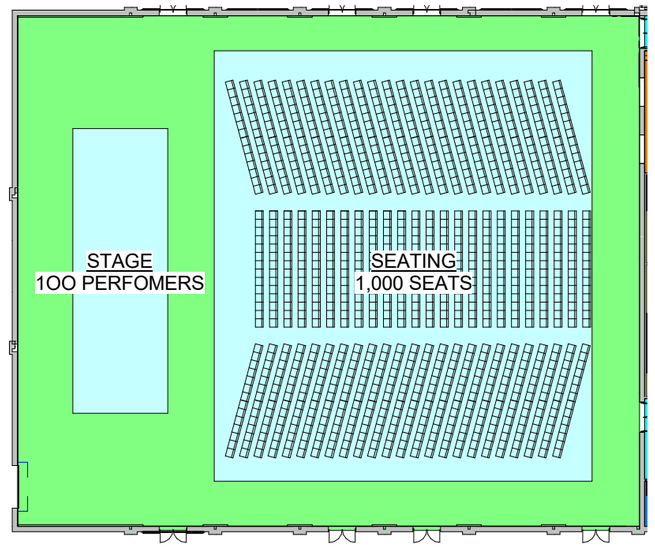
ALTERNATE GYM PLAN - VOLLEY BALL

0' 16' 32' 64'



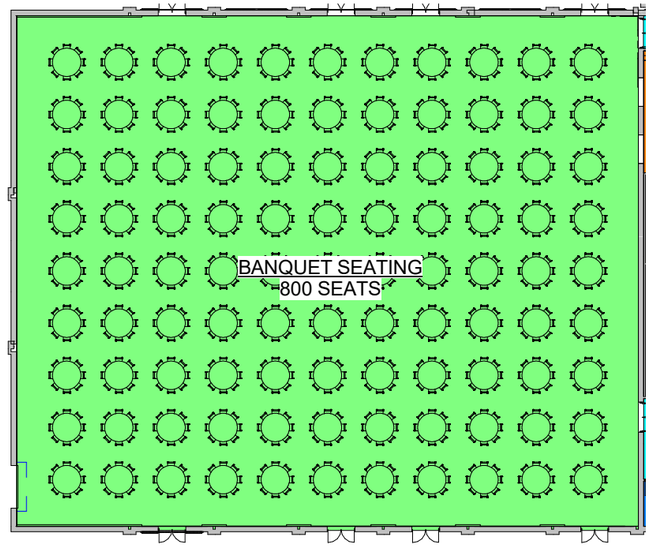
ALTERNATE GYM PLAN - INDOOR SOCCER

0' 16' 32' 64'



ALTERNATE GYM PLAN - PERFORMANCE

0' 16' 32' 64'



ALTERNATE GYM PLAN - BANQUET

0' 16' 32' 64'

DATE:	04/10/2017

GTG

Creative Building Solutions That Work

the City of Marshalltown

Veterans Memorial Coliseum Feasibility Study

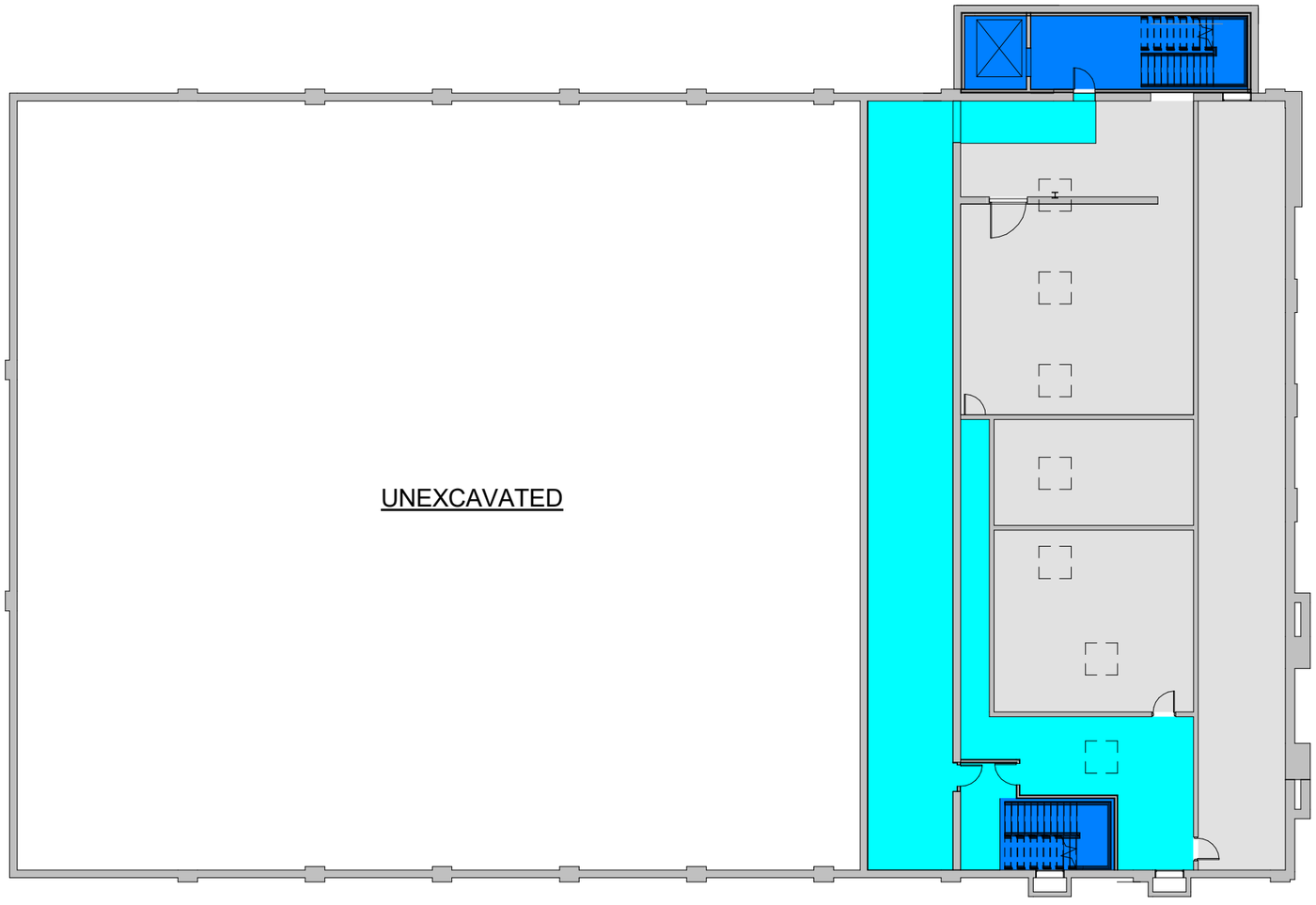
VIEW LOOKING SOUTHWEST INSIDE GYM

DATE:	04/10/2017

GTG

Creative Building Solutions That Work

Veterans Memorial Coliseum Feasibility Study



BASEMENT FLOOR PLAN LEGEND

- HIGH VOLUME RECREATION = 0 SF
- LOW VOLUME FLEX SPACE = 0 SF
- OFFICE/SUPPORT = 0 SF
- REST ROOM = 0 SF
- HALLWAY/CIRCULATION = 2,1112 SF
- STAIRS/ELEVATOR = 567 SF
- STORAGE/MECHANICAL = 3,741 SF

BASEMENT FLOOR PLAN

0' 10' 20' 40'

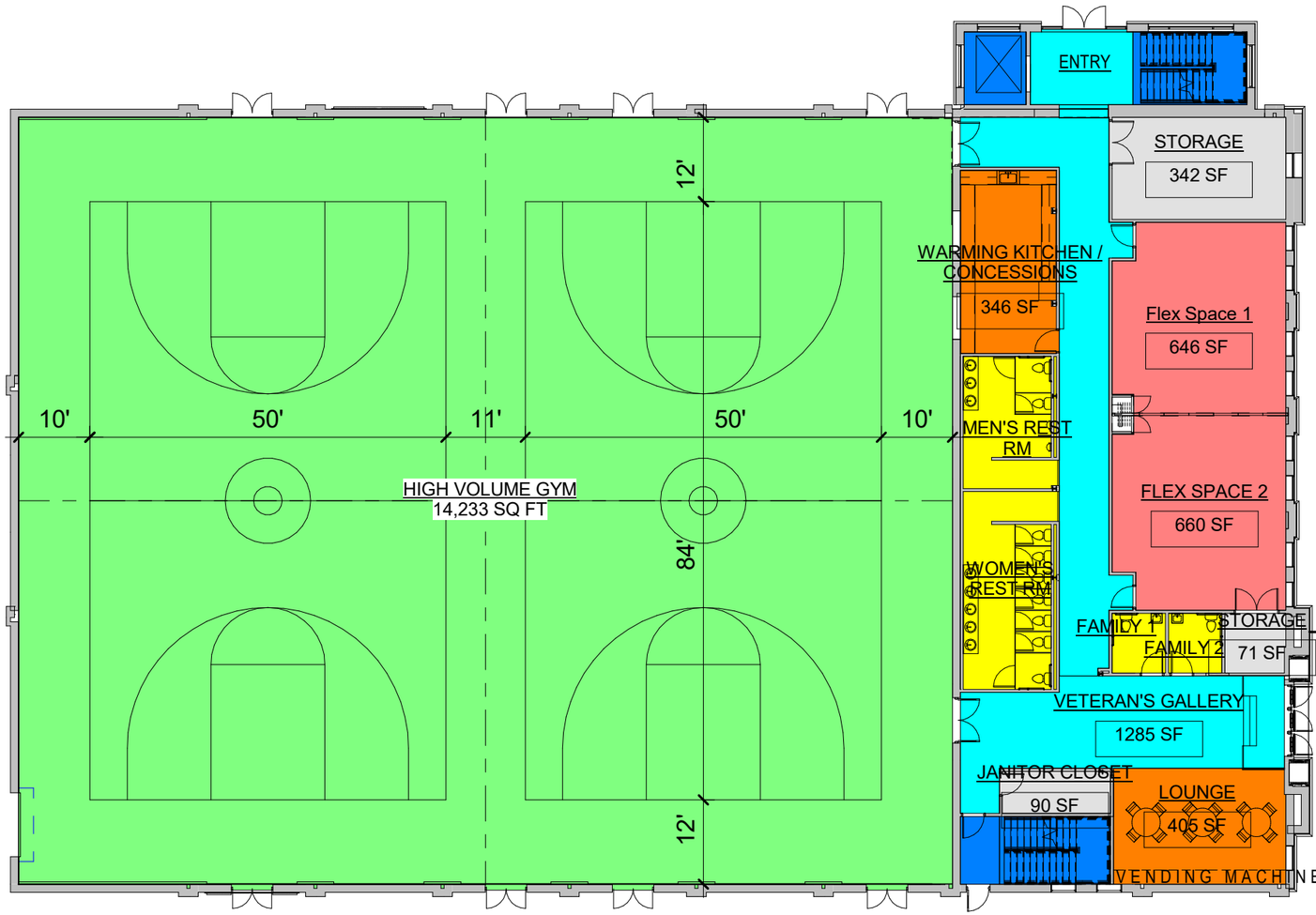
N

DATE:	04/10/2017

GTG

Creative Building Solutions That Work

Veterans Memorial Coliseum Feasibility Study



FLOOR PLAN LEGEND

- HIGH VOLUME RECREATION
- LOW VOLUME FLEX SPACE
- OFFICE/SUPPORT
- REST ROOM
- HALLWAY/CIRCULATION
- STAIRS/ELEVATOR
- STORAGE/MECHANICAL

FIRST FLOOR PLAN

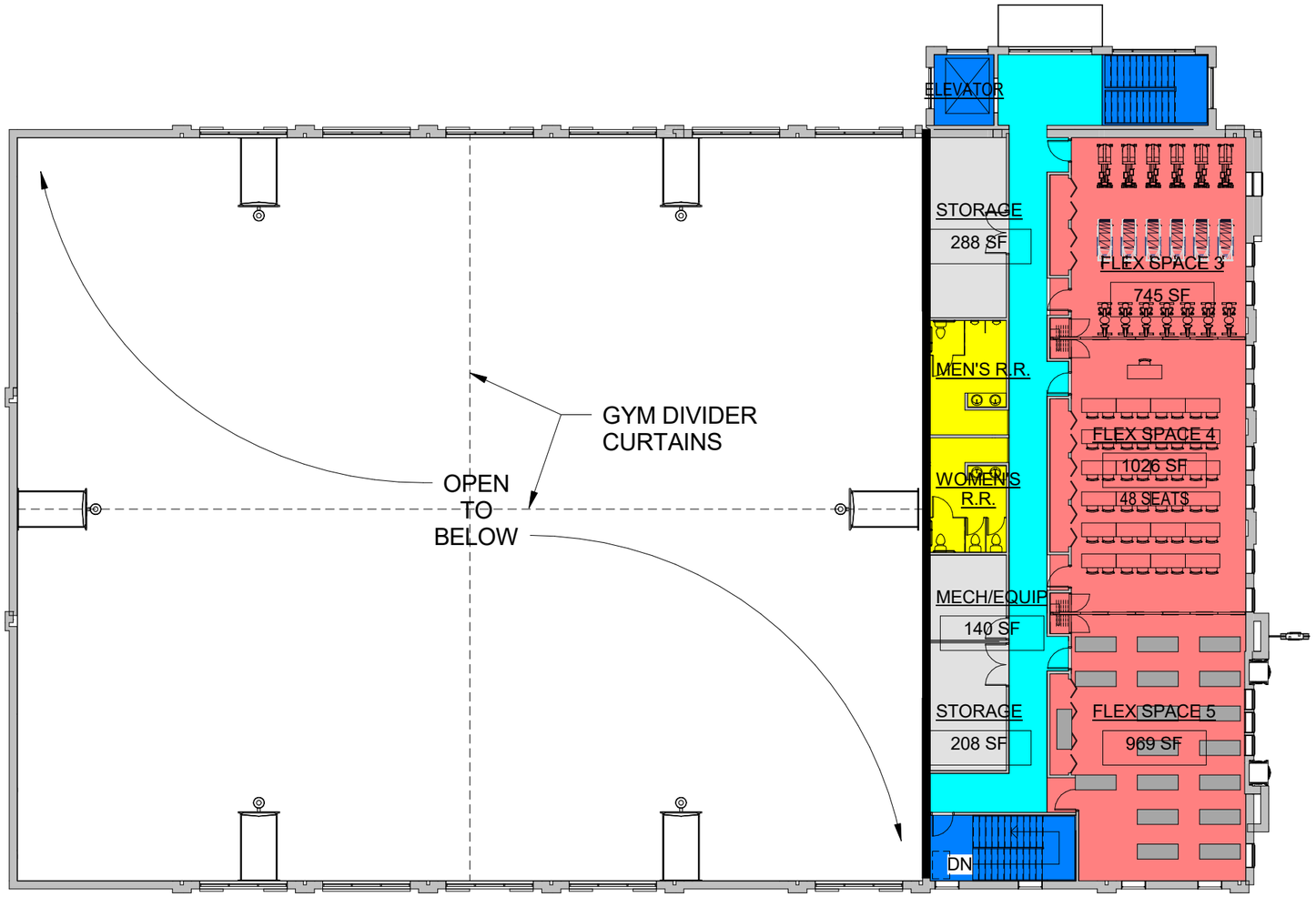
0' 10' 20' 40'

N

DATE:	04/10/2017

GTG
Creative Building Solutions That Work

Veterans Memorial Coliseum Feasibility Study



FLOOR PLAN LEGEND

- HIGH VOLUME RECREATION
- LOW VOLUME FLEX SPACE
- OFFICE/SUPPORT
- REST ROOM
- HALLWAY/CIRCULATION
- STAIRS/ELEVATOR
- STORAGE/MECHANICAL

SECOND FLOOR PLAN

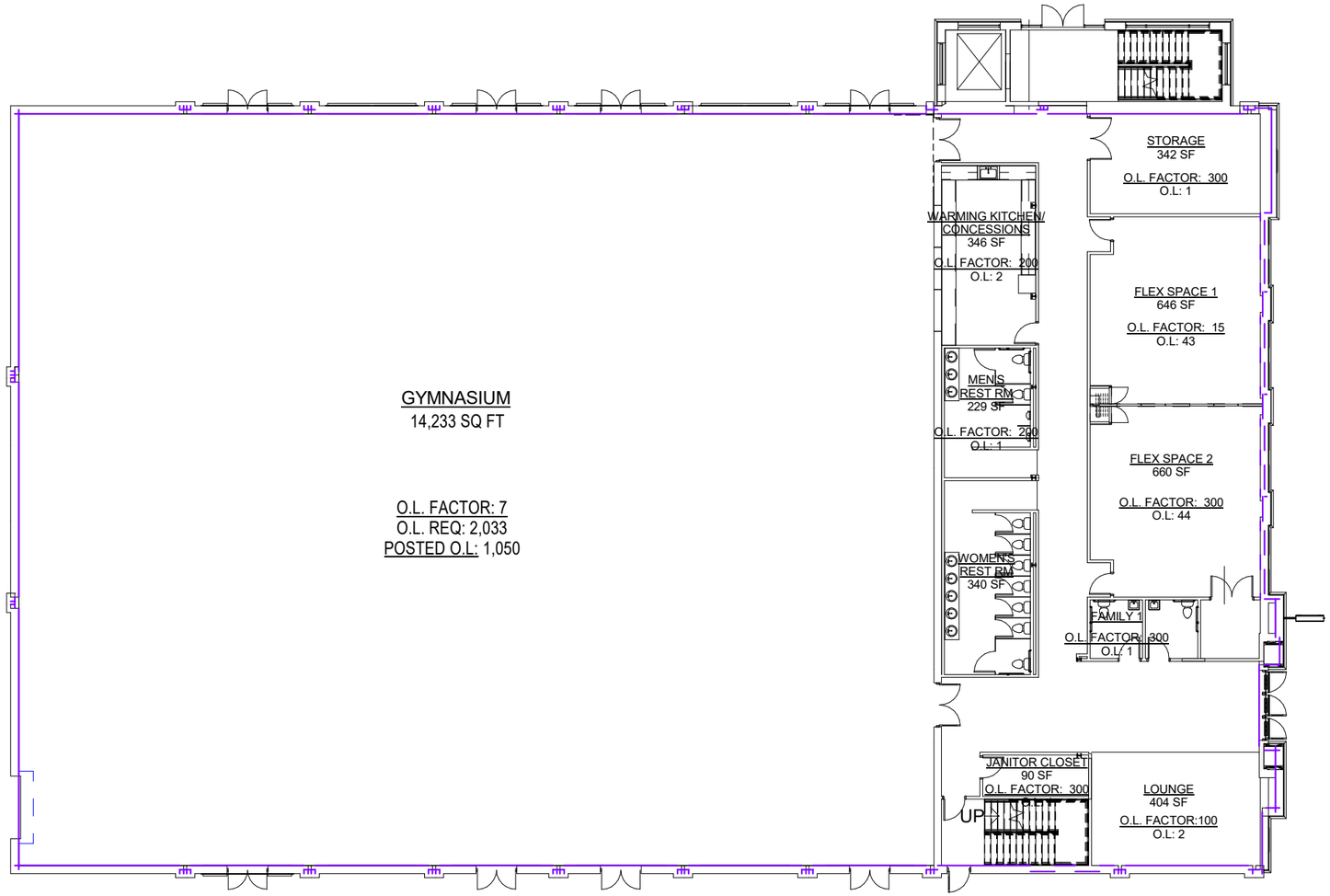
0' 10' 20' 40'

N

DATE:	04/10/2017

GTG
Creative Building Solutions That Work

Veterans Memorial Coliseum Feasibility Study



EGRESS SIZING

TOTAL OCCUPANT LOAD:

ADMIN 1ST:	95
GYM (POSTED)	1050
ADMIN 2ND (POSTED)	151
TOTAL	1296

EGRESS CAPACITY (SPRINKLERED)
ADMIN 1ST
REQ: .2"/OCC - 95 X .2 = 19"
OTHER REQ: .15"/OCC - 95 X .15 = 15"
PROVIDED (DOORS): 5 X 36 = 180"

CORRIDOR WIDTH:
REQUIRED: 44"
PROVIDED: 72"

GYM
REQ: .2"/OCC - 1050 X .2 = 210"
OTHER REQ: .15"/OCC - 95 X .15 = 158"
PROVIDED (DOORS): 8 X 36 = 288"

REQ PLUMB FIX (A-3):
TOTAL OCC LOAD : 1296/2 = 648 M/W
M: 1/125 = 648/125 = 6 - 8 PROVIDED
W: 1/65 = 648/65 = 10 - 11 PROVIDED

FIRST FLOOR - CODE PLAN

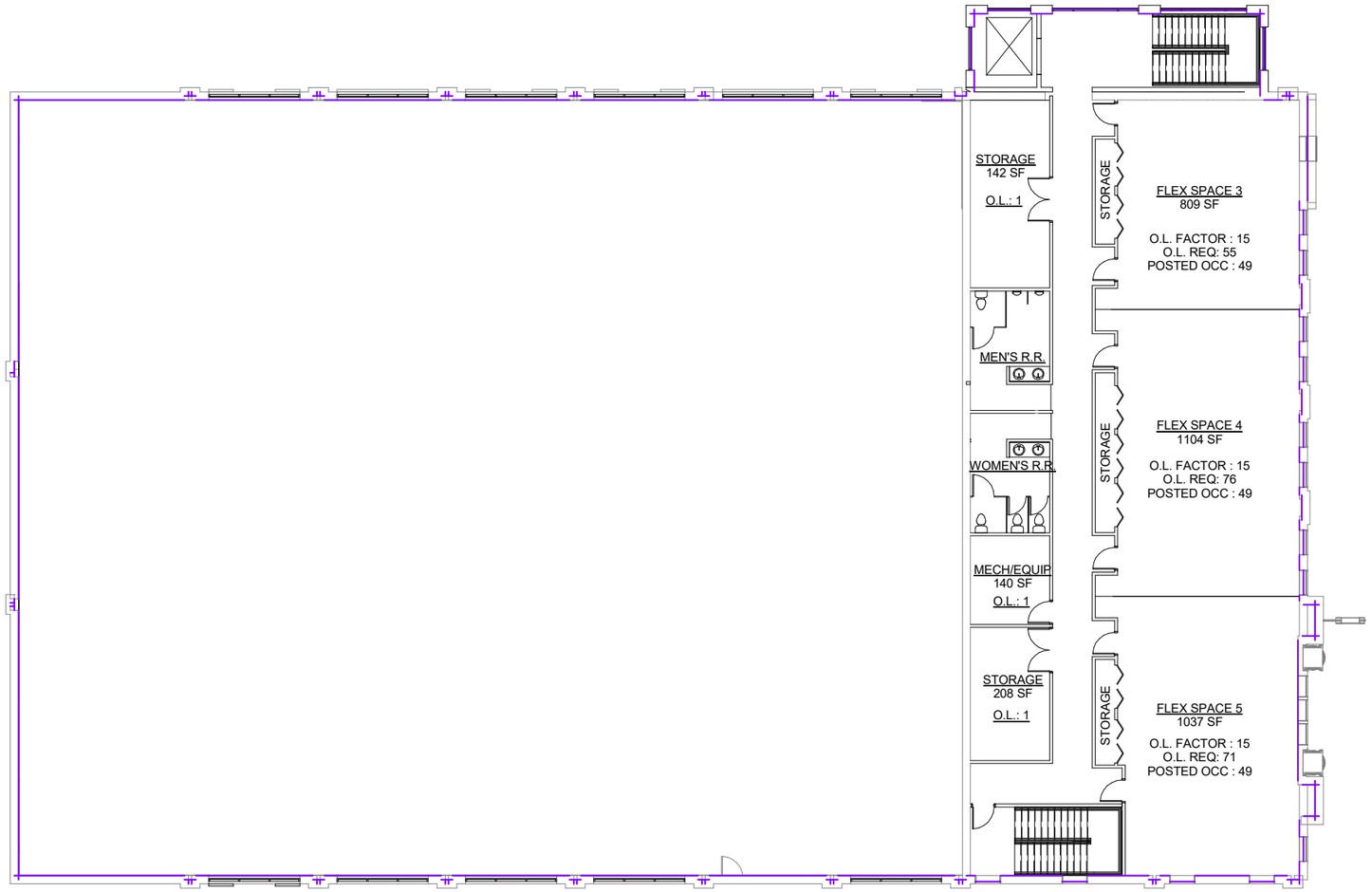
0' 10' 20' 40'

N

DATE:	04/10/2017

GTG
Creative Building Solutions That Work

Veterans Memorial Coliseum Feasibility Study



EGRESS SIZING

TOTAL OCCUPANT LOAD:

EGRESS CAPACITY (SPRINKLERED)
STAIRS REQ: .2"/OCC REQ - 151 X .2" = 30.2"
STAIRS PROVIDED: 54" X 2 = 108"

OTHER REQ: .15"/OCC - 151 X .15 = 22.6
PROVIDED (STAIRWAY DOORS): 2 X 36 = 72"

CORRIDOR WIDTH:
REQUIRED: 44"
PROVIDED: 60"

REQ PLUMB FIX (A-3):
M: 1/125, W: 1/65 = 1M/2F

PLUMBING FIX COUNT: 3M/3W

SECOND FLOOR - CODE PLAN

0' 10' 20' 40'

N

DATE:	04/10/2017

GTG
Creative Building Solutions That Work

REPORT

FACILITY ASSESSMENT

Veterans Memorial Coliseum

Marshalltown, Iowa

Prepared for:

Steve Grasso

GTG Companies

SystemWorks LLC
Commissioning Sustainable Buildings

SystemWorks LLC | 409 Fifth Street, West Des Moines, IA 50265 | **phone:** 515.975.0575 | **fax:** 515.255.1155

EXECUTIVE SUMMARY

On February 20, 2017, SystemWorks conducted an investigative site visit at the Veterans Memorial Coliseum at 20 West State Street in Marshalltown, Iowa. The intent of this report is to discover and document the current conditions of major building systems.

The following building systems were visually reviewed for this project:

A. Mechanical System
B. Electrical System
C. Plumbing System
D. Building Envelope

FACILITY DESCRIPTION

Veterans Memorial Coliseum is a 25,000 square foot facility consisting of two main parts: a 14,500 square foot Auditorium/Gymnasium and a two-story multi-use, mostly vacant space. The building was originally built in 1929 and utilized natural ventilation and a coal-fired steam boiler. Over the years, the building has undergone various upgrades and alterations, including the addition of a 520-seat balcony and the removal of the coal boiler.

The Auditorium/Gymnasium area of the Coliseum is currently used for a variety of activities, ranging from athletic tournaments to dances. The two-story area is only utilized on the first floor. The second floor is currently vacant.

MECHANICAL SYSTEM

Originally, the building was heated by a coal-fired steam boiler that provided low pressure steam to cast-iron radiators throughout the building. The office area still has some of the original steam radiators. None of the radiators appear to have leaks, so these could potentially be re-used as part of a renovation project to preserve some of the building's history.

The boiler has since been removed and replaced with six Lennox forced-air, natural gas furnaces. Two of these furnaces currently only serve office areas on the first floor. These two furnaces are relatively new (< 5 years old) and appear to be in proper working order. Much of the original steam piping has been cut out.

Figure 1: Office area furnace

Figure 2:Cut steam piping

The other four furnaces serve the Gym. The Gym furnaces are installed high above the Gym floor in a downward airflow configuration. These pull air from the ceiling and blow air straight down to the floor. The Gym furnaces are all relatively new and are in proper working order. The location of these furnaces make regular maintenance and filter changes very challenging.

Six propeller-type exhaust fans in the Gym can provide some indirect cooling by inducing unconditioned fresh air into the space through exterior doors. The exhaust fans are currently functional.

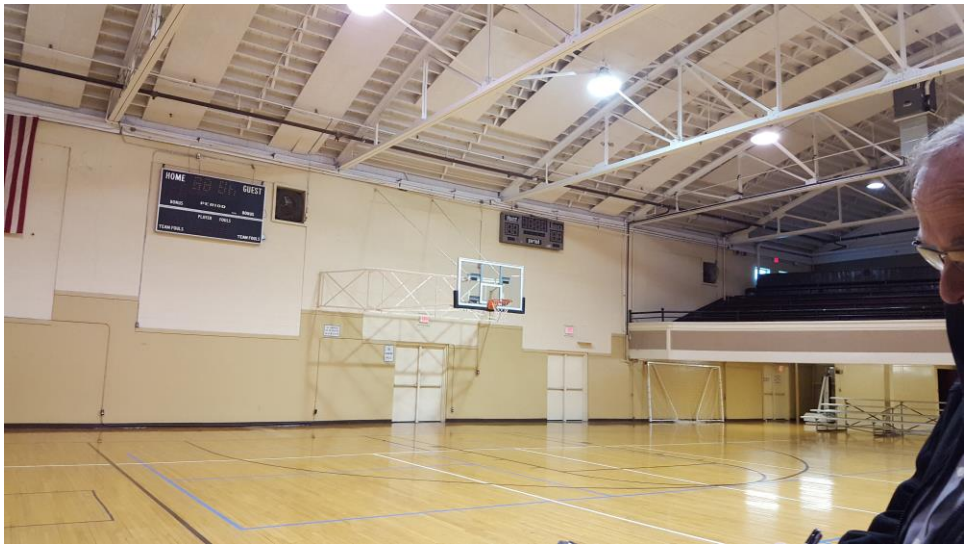


Figure 3:Gym area showing exhaust fans, exterior doors, and furnace.

The building has no active or mechanical air conditioning aside from two small window mounted air conditioners that serve one room (the Blue Room) on the first floor.

Figure 4: Blue Room showing window-mounted air conditioner

Aside from inducing unconditioned outside air through exterior doors, the building has no direct means of ventilation. None of the forced-air furnaces or window-mounted units have any capability of introducing outside air into the building.

Aside from two programmable thermostats that control all six furnaces, the building has no temperature controls. The programmable thermostats seem to be in working order. Gym exhaust fans are controlled by manual on/off switches.

The building also has some small bathroom exhaust fans and associated ductwork. The bathroom exhaust fans themselves use antiquated motors and were not in operation during our site visit. There has also been some plumbing and electrical modifications performed that destroyed the integrity of the exhaust ductwork.

Figure 5: Antiquated restroom exhaust fan

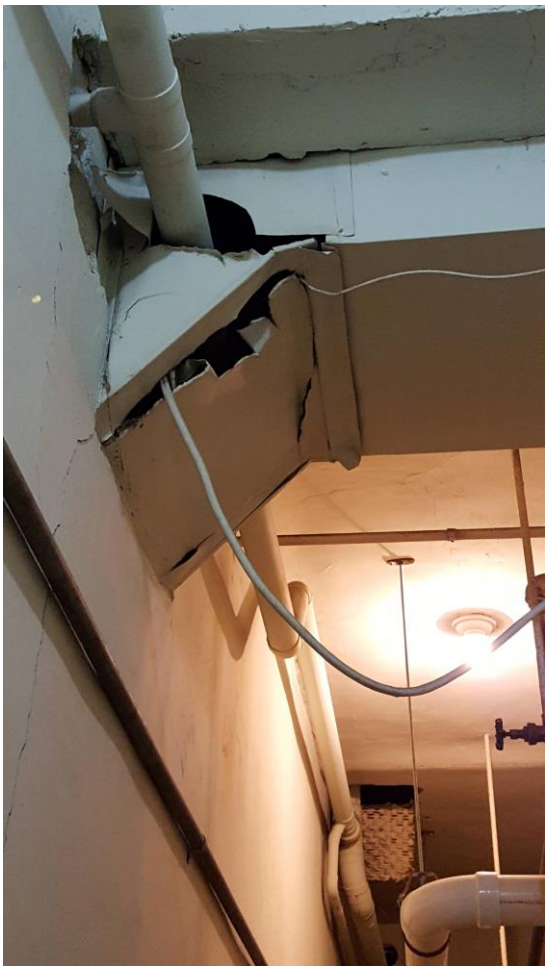


Figure 6: Damaged exhaust ductwork

ELECTRICAL SYSTEM

Over the years, the building's electrical service has been expanded and split into subpanels multiple times. The main electrical service is currently a 208 volt, 3 phase, 800 amp service. The building also has a working 10 kW backup generator. The generator only serves the front office area for emergency lighting.

Much of the building's electrical wiring is run in exposed conduit. The conduit mainly appears to be good shape.

The electrical panels appear to be in good working order. Many panels utilize older circuit protection technology. The city has already inquired about upgrading these panels to modern circuit protection technology.

The backup generator appears to be well maintained and tested.

Figure 7: Main electrical panel

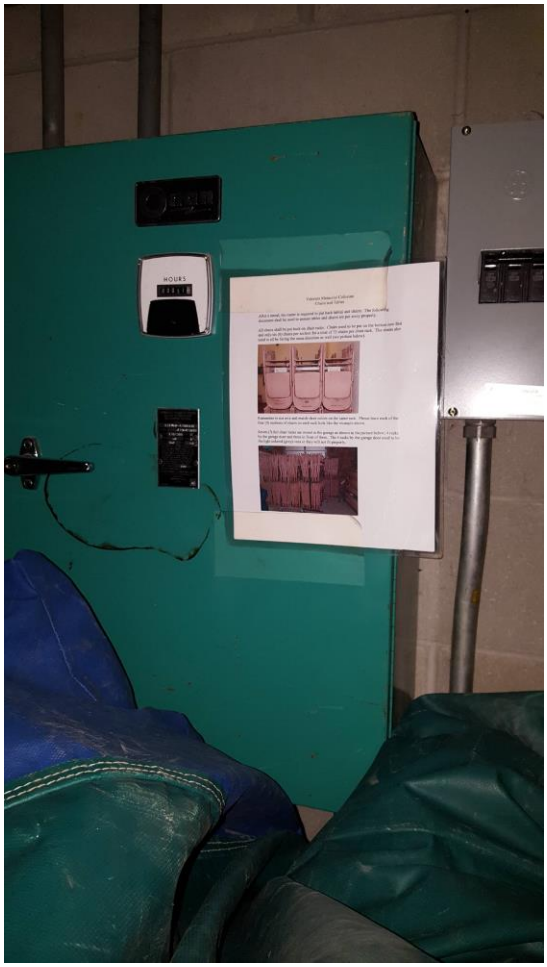


Figure 8: Backup generator

PLUMBING SYSTEM

The plumbing systems in the building appear to have undergone various upgrades and modifications over the years. Many of the drainage (sewer and roof drain) systems have been updated from cast-iron to PVC piping. The domestic hot water system also appears to have been updated recently with a modern, natural gas hot water heater & tank.

Figure 9: Updated PVC piping next to out-of-service piping

Figure 10: Natural gas hot water heater

The domestic supply water appears to be in decent shape. Much of the existing copper piping could potentially be re-used under a renovation project. City provided water meter and backflow preventer both appear to be fully functional.

Figure 11: Backflow preventer

Figure 12: Domestic water piping and water meter

BUILDING ENVELOPE

According to building operators, the facility has a new EPDM roof throughout. The underside of the roof is exposed in the Gym area. There does not appear to be any insulation on the underside of the roof deck. According to maintenance staff, the new roof was not provided with any additional insulation.

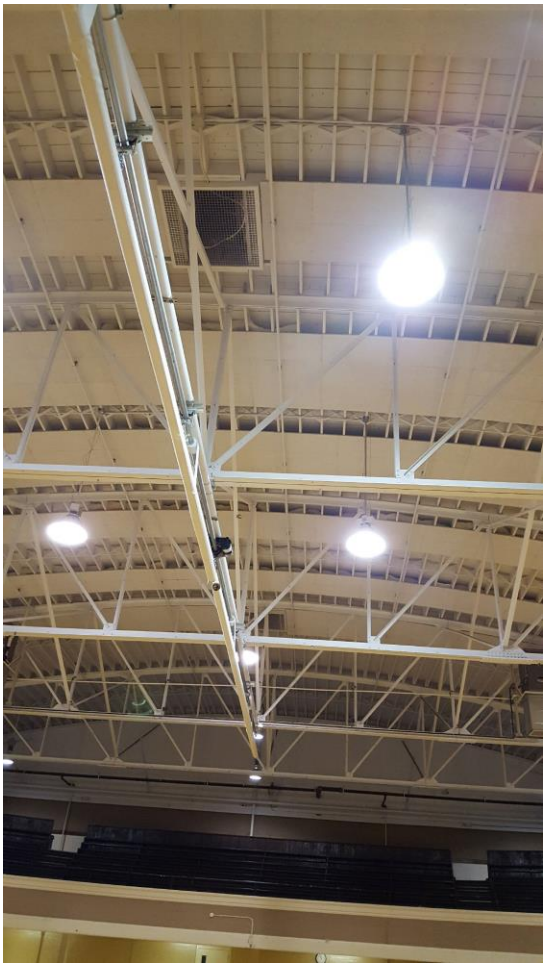


Figure 13: Underside of roof in Gym area

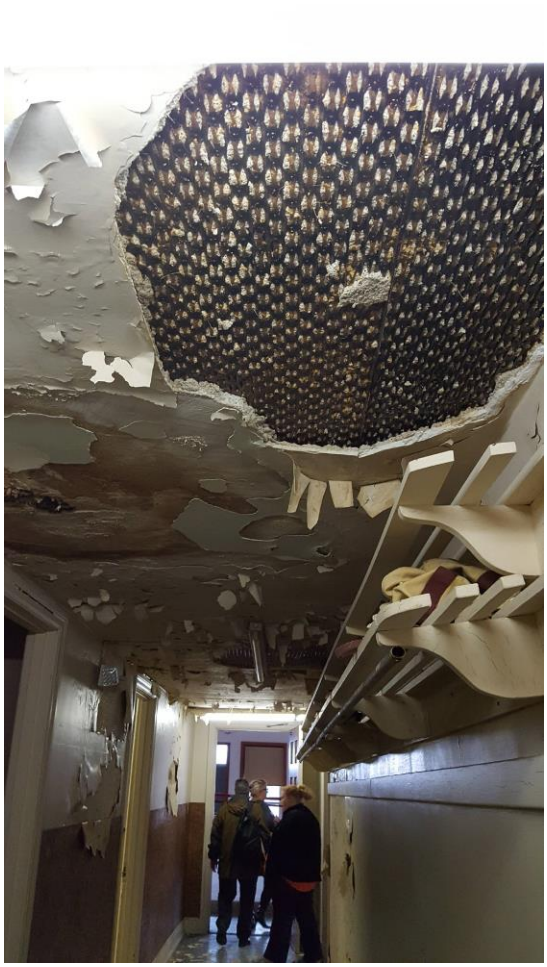


Figure 14: Water damage in second floor hallway

There is evidence of moisture intrusion into the occupied space on the second floor. Extensive water damage is apparent throughout the second floor. There does not appear to be much evidence of roof leaks that are still leaking. There was no standing water or catch basins inside the building. There was no dripping water present during our site visit, which was conducted during rainy weather conditions. The extent of the water damage is unclear. Additional investigation would be required to determine any structural damage. There was little evidence of apparent mold growth inside the building. This does not rule out the possibility of mold being present behind finished surfaces. Additional investigation would be required to rule out the presence of health affecting mold growth.

The original design included large windows on both sides of the Gym. These has since been removed and replace with painted concrete brick. The windows on the office side of the building are 1/8” single pane glass. Seals around windows appear aged and degraded. The building also has two skylights. There is evidence of moisture intrusion around these skylights.

Figure 15: Close-up of existing window frame

Figure 16: Water damage under skylight

There is also some substantial moisture-based damage around the perimeter of the office area. This damage may be the result of roof leaks or moisture transfer through the exterior wall. This moisture transfer could potentially be caused by building negative pressure as a result of running the Gym exhaust fans without opening the exterior doors.

Figure 17: Water damage on East wall, second floor

March 2, 2017

GTG Architects, LLC
6505 Merle Hay Road, Suite A
Johnston, IA 50131

RE: Environmental Review for Veterans Memorial Coliseum, 20 W State St., Marshalltown, IA

Impact7G, Inc. (Impact7G) has completed a limited Asbestos Containing Materials (ACM) screening, asbestos report review, visible mold inspection, and limited visual paint inspection for Lead Based Paint (LBP) concerns for the existing Veterans Memorial Coliseum structure located at 20 W State St., Marshalltown, IA; hereinafter referred to as the "Property."

The limited ACM screening took place on February 20, 2017 and consisted of sampling select suspect building materials per the direction of GTG Architects, LLC and analyzing them for asbestos. These samples were analyzed for asbestos by polarized light microscopy (PLM) and the results of the suspect ACM are summarized in the following table.

Table 1 – Summary of Suspect Asbestos
(Determined through laboratory analysis and/or assumed to contain ACM)

Sample #	Material Substance	Color	Location	Asbestos Content
17JR022001	Ceiling Plaster	Cream	Boiler Room, Basement	ND
17JR022002	Pipe Wrap	White	Boiler Room, Basement	ND
17JR022003	Pipe Insulation	Yellow	Boiler Room, Basement	ND
17JR022004	Wall Plaster	Cream	NE Room, 2nd Floor	ND
17JR022005	Pipe Wrap	White	Machine Room, 2nd Floor	ND
17JR022006	Pipe Insulation	White	Machine Room, 2nd Floor	50% Chrysotile
N/A	9"x9" Floor Tile	Gray with Black Streaks	2nd Floor	Assumed
N/A	9"x9" Floor Tile	Green	2nd Floor	Assumed
N/A	9"x9" Floor Tile	Red with Cream Streaks	2nd Floor	Assumed
N/A	9"x9" Floor Tile	Cream with Red Streaks	2nd Floor	Assumed
N/A	9"x9" Floor Tile	Green – Wavy Pattern	2nd Floor	Assumed
N/A	9"x9" Floor Tile	Cream – Wavy Pattern	2nd Floor	Assumed
N/A	9"x9" Floor Tile	Red	Ticket Office, 1st Floor	Assumed

ND = Non Detect

ACM is defined as a material that is greater than 1% asbestos. ACM was detected in samples collected and is assumed on the Property. Asbestos was identified in white pipe insulation. Depending on possible renovations to the Property, the ACM may or may not need to be abated. This sampling event

DOES NOT constitute a full asbestos inspection. If renovation or demolition activities take place on the property a full asbestos inspection should be completed.

Impact7G reviewed an asbestos inspection report for the Property completed by Chart Services, Ltd. on April 2, 1990. The identified ACM are summarized in the following table.

Table 2 – Summary of ACM (4/2/1990)
(Determined through laboratory analysis)

Sample #	Material Substance	Color	Location	Asbestos Content
472795	Pipe Insulation	Grey	Tank Room, Basement	30% Chrysotile
472810	Pipe Joint Plaster	Grey	Boiler Room Hallway	15% Chrysotile 20% Amosite
472792	Pipe Insulation	Grey	Men's Locker Room	40% Chrysotile
472801	Pipe Joint Plaster	Grey	Tank Room, Basement	20% Chrysotile 15% Amosite
472798	Pipe insulation	Grey	Tank Room, Basement	35% Chrysotile
472804	9"x9" Floor Tile	Red	Phone Room, Entry	13% Chrysotile
473196	Floor Tile	Brown	Stairs, Entry	>1% Chrysotile
472816	9"x9" Floor Tile	Green-White	Hallway, 2nd Floor	7% Chrysotile
472819	9"x9" Floor Tile	Tan-Orange	Sunday School Room	7% Chrysotile
472822	9"x9" Floor Tile	Orange-White	Sunday School Room	7% Chrysotile
472825	9"x9" Floor Tile	White-Black Specks	Nursery Closet	2% Chrysotile
472828	9"x9" Floor Tile	Gray-Black-White	Workout Room	2% Chrysotile
472831	9"x9" Floor Tile	Gray-Black-White	Workout Room	2% Chrysotile

According to the Chart Services report, ACM was detected in samples collected from the Property. Asbestos was identified in grey pipe insulation, grey joint plaster, floor tile, and 9"x9" floor tile. Based on conversations with City of Marshalltown employees, an Assessment & Proposed Improvements report for the Property completed by TSP Six, Inc. in 1997, and recent sampling of materials in similar places, it appears much of, if not all of, the asbestos has been abated from the piping in the basement. According to the Assessment & Proposed Improvements report, and confirmed by recent sampling, some asbestos piping insulation remains in concealed spaces.

Impact7G visually inspected the Property for suspect visible mold. No suspect mold was observed during the visible inspection of the Property. A full Indoor Air Quality (IAQ) investigation can be performed to verify the presence or absence of mold within the Property. A full IAQ investigation would include the collection of building material moisture readings, interior humidity readings, spore trap analysis to determine if spores are in the air, swab and/or tape lift samples of any areas of visible growth, and identification of potential moisture intrusion areas.

Impact7G performed a limited visual paint inspection of the Property for Lead-Based Paint (LBP) concerns. Due to the age of the building, all painted surfaces should be assumed to be lead containing until proven otherwise for occupant and worker safety. Areas of deteriorated paint were observed in various locations of the Property. LBP in a deteriorated condition may represent a potential lead hazard or contribute to a potential dust-lead hazard for people who come into contact with the LBP. It is recommended a full LBP Inspection be conducted to determine if LBP is present on the Property. Until an LBP inspection has been completed, should any painted surfaces be disturbed in any manner that generates dust, extreme care must be taken to limit its spread. Safe work practices should always be used during any remodeling project, in addition to using a certified lead abatement contractor or professional certified lead worker.

Thank you for this opportunity to provide you with our services, should any questions arise, please feel free to contact me at 515-473-6256 or jreis@impact7g.com.

Sincerely,

Jon Reis
Impact7G, Inc.

Enclosures – Analytical Results
Previous Reports

Analytical Results

IMPACT7G

P.O. BOX 661, 410 MAIN STREET, SLATER, IA 50244, 800-383-3400
www.impact7g.com, info@impact7g.com

BULK SAMPLE ANALYSIS RESULTS

Client: GTG Architects, LLC.
Steve Grasso
6505 Merle Hay Road, Suite A
Johnston, IA 50131

Date of Report: 2/21/2017
Client No: 5180
Project Desc.: 20 West State Street, Marshalltown, IA

Job #: 17-0183

SAMPLE NUMBER	SAMPLE DESCRIPTION	MATERIALS PRESENT %	MATERIALS PRESENT TYPE	TOTAL ASBESTOS PERCENTAGE	ANALYSIS DATE	ANALYST
17JR022001	Ceiling plaster, cream, boiler room	100%	Nonfibrous Binders	0%	2/21/2017	David D. Lester
17JR022002	Pipe wrap, white, boiler room	97% 3%	Cellulose Nonfibrous Binders	0%	2/21/2017	David D. Lester
17JR022003	Pipe insulation, yellow, boiler room	5% 85% 2% 8%	Cellulose Glass Fiber Nonfibrous Binders Tar	0%	2/21/2017	David D. Lester

!Analysis by Polarized Light Microscopy using EPA 600/R-93-116 Method for Bulk Sample Analysis. Test results pertain only to the material content of the sample(s) analyzed. PLM has been known to miss asbestos ir a small percentage of samples which contain asbestos. Therefore, negative PLM results cannot be guaranteed. Samples reported as <1% or none detected should be tested with TEM. If a floor tile is found to contain no asbestos, the EPA recommends additional testing to prove the lack of asbestos in this material. Percentages of fibrous materials reported are representative of the sample analyzed and not necessarily the percentages in the material as a whole. Member of the American Industrial Hygiene Association (AIHA) Bulk Quality Assurance Program, Laboratory ID: 9821

SAMPLE NUMBER	SAMPLE DESCRIPTION	MATERIALS PRESENT %	TYPE	TOTAL ASBESTOS PERCENTAGE	ANALYSIS DATE	Job #: 17-0183 ANALYST
17JR022004	Wall plaster, cream, non-com room	100%	Nonfibrous Binders	0%	2/21/2017	David D. Lester
17JR022005	Pipe wrap, white, machine room	98% 2%	Cellulose Nonfibrous Binders	0%	2/21/2017	David D. Lester
17JR022006	Pipe insulation, white, machine room	50% 30% 20%	Chrysotile Cellulose Nonfibrous Binders	50%	2/21/2017	David D. Lester

Analyst: David D. Leste

!Analysis by Polarized Light Microscopy using EPA 600/R-93-116 Method for Bulk Sample Analysis. Test results pertain only to the material content of the sample(s) analyzed. PLM has been known to miss asbestos ir a small percentage of samples which contain asbestos. Therefore, negative PLM results cannot be guaranteed. Samples reported as <1% or none detected should be tested with TEM. If a floor tile is found to contain no asbestos, the EPA recommends additional testing to prove the lack of asbestos in this material. Percentages of fibrous materials reported are representative of the sample analyzed and not necessarily the percentages in the material as a whole. Member of the American Industrial Hygiene Association (AIHA) Bulk Quality Assurance Program, Laboratory ID: 9821